AN AJSS An Asian Journal of Soil Science
Volume **14** | Issue 1&2 | June & December, 2019 | 63-66 | ISSN–0973–4775 ■ Visit us : www.researchjournal.co.in

Research Article

DOI : 10.15740/HAS/AJSS/14.1and2/63-66

Influence of integrated nutrient management on biometric and biomass production of maize crop in acid soils of Odisha

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Received : 08.10.2019; **Revised :** 13.11.2019; **Accepted :** 22.11.2019

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Summary

A pot culture experiment was conductedon influence of integrated nutrient management on biometric and biomass production of maize crop in acid soils of Odisha in the Dept. of Soil Science and Agricultural Chemistry, College of Agriculture, OUAT, Bhubaneswar during *Kharif* 2016. The treatments were T_1- control, T_2- STD, T_3-STD+lime (PMS) @0.2LR, T_4 – STD Vermicompost (VC) 2.5 t / ha, T_5- STD +lime (PMS) @0.2LR + vermicompost (VC) @2.5 t / ha. The result of the experiment indicated that combined application of STD +lime (PMS) 0.2LR + vermicompost (VC) @2.5 t / ha (T_5) provided highestchange of plant growth rate (cm/day) over the crop growing period (1.10) and chlorophyll content (mg/g leaf tissue) is 39.4 in comparision to other treatments. Similarly highest fresh biomass production 58.2g/pot, root densityis 0.74g/cm^3 and relative agronomic efficiency (RAE %) is 365 was found in the same treatment. The lowest values was found in absolute control (T_1). Therefore, combined application of organic amendment (VC) with lime source influence the biomass production positively.

Key words : Soil test dose (STD), Vermicompost (VC), Paper mill sludge (PMS)

How to cite this article : Prusty, Meenakhi, Ray, Monika and Dandasena, Sunita (2019). Influence of integrated nutrient management on biometric and biomass production of maize crop in acid soils of Odisha. *Asian J. Soil Sci.,* **14** (1&2) : 63-66 : **DOI : 10.15740/HAS/AJSS/14.1and2/63-66.**